

50. A method according to claim 45, wherein the phase grating mask is configured so as to induce different phase in at least two adjacent portions of the light beam which passes through the phase grating mask.

51. A method according to claim 45, wherein the phase grating mask has a surface relief pattern formed thereon.

52. A method according to claim 48, in which the surface relief pattern in cross-section is a square-wave.

53. A method according to claim 48, in which the surface relief pattern in cross-section is a sine wave.

54. A method according to claim 51, wherein the phase grating mask has the surface relief pattern selected to modulate by approximately  $\pi+2$  radians the phase of the light beam, wherein

$$\frac{4 \pi (n_{\text{silica}} - 1)A}{\lambda} = \pi + 2 \pi n$$

where A is the amplitude of the surface relief pattern,  $n = 0, 1, 2, 3$ ,  $\lambda$  is the wavelength of the light used for writing (photoinducing) an index change in the optical medium and  $n_{\text{silica}}$  is the refractive index of the silica used in the mask at  $\lambda$ . --

#### REMARKS

Entry of this amendment, and reconsideration and allowance of this application, as amended, is respectfully requested.

This amendment is in response to the Office Action dated July 31, 2002 as well as the Decision by the Board of Patent Appeals and Interferences dated August 7, 2002 awarding priority in Interference 104,331 to Party Hill for USP 5,367,588 (the patent which the present reissue application pertains to) against Snitzer United States Patent Application Serial No. 08/310,426, filed September 22, 1994 (which is a continuation application of the patent application issued to Snitzer as U.S. Patent 5,351,321, cited against claims of the present application in the March 22, 2000 Office Action in this reissue application) and also against U.S. Patent 5,327,515 to Anderson.

In response to the Office Action dated July 31, 2002, applicants are enclosing herewith signed copies of the Preliminary Amendment filed with the original application papers on June 29, 1999 and the Preliminary Amendment filed on November 12, 1999. With regard to this, it is assumed that these are the two Preliminary Amendments referred to in the Office Action in the statement:

"The amendments (Note two preliminary amendments Papers 4 and 5) both filed on 6/29/99 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): The amendments are unsigned."

In particular, these are the only two preliminary amendments which are present in the applicants' copy of the file. As noted above, one of these amendments was filed on June 29, 1999, while the other preliminary amendment was filed on November 12, 1999. If the Office Action was referring to some other amendments, it is respectfully requested that a new Office Action be issued specifically identifying any such other amendments.

The undersigned attorney hereby states that the copies provided herewith are complete and accurate copies of the applicants' records of these amendments, except for the fact that the applicants' copies of these amendments are unsigned.

As such, the signatures provided on the attached copies of the amendments have been added on even date herewith for purposes of complying with the requirements set forth in the Office Action for the amendments to be signed. It is noted that the unsigned copies of these amendments submitted on November 9, 2001 with the Response to Notice Under 37 CFR 1.251 were provided by the applicants from the applicants' copy of the application file to assist the USPTO in reconstructing the file since the original amendments filed on June 29, 1999 and November 12, 1999, which, to applicants' knowledge, were signed, have been lost in the USPTO.

By the present amendment, new claims 43-54 are presented for examination. It is noted that these claims correspond exactly to previously submitted claims 30-40 and 42. Claims 30-40 and 42 had previously been cancelled in the December 23, 1999 amendment so that the present reissue application could be considered in the interference 104,331 based upon motions filed by party Hill in that interference. As noted in the December 23, 1999 amendment, the decision of Winter et al. v. Fujita et al. decided on November 16, 1999 indicated that a reissue application would not be considered in an interference if it contained claims which did not correspond to the count. Therefore, in an attempt to enter the present reissue application into the interference, Claims 30-40 and 42 are cancelled. ✓

However, at the present time, it is noted that the motions which were filed in the interference for the purposes of bringing the present reissue application into the interference were not granted. In addition, the decision by the Board of Patent Appeals and Interferences dated August 7, 2002, has awarded priority to the Party Hill, that is, the present reissue applicant. Accordingly, at the present time, applicants are reinstating the previously presented claims 30-40 and 42 as new claims 43-54, and request consideration and allowance of these claims together with

the other pending claims 1-29.

With regard to this, it is noted that new claims 43-54 define further features of the present invention beyond the features defined in pending claim 1. In the Office Action dated March 22, 2000, the sole ground of rejection against claim 1 was a 35 U.S.C. 102(e) rejection of claim 1 being anticipated by U.S. Patent 5,351,321 to Snitzer et al. However, for reasons set forth in the Request for Reconsideration on June 2, 2000, including the submission of a Declaration under 37 C.F.R. 1.131, it is respectfully submitted that this rejection should be removed with regard to independent claim 1, and is not applicable to newly presented claims 43-54 which contain further limitations over and above those presented in claim 1. Beyond this, as noted above, applicants have been awarded a decision of priority for the U.S. Patent 5,367,588, to which the present reissue application is directed, relative to the Snitzer patent application Serial No. 08/310,426, which is identical to the Snitzer patent application Serial No. 963839 which ultimately issued as the Snitzer U.S. patent 5,351,321. Accordingly, entry and allowance of newly presented claims 43-54, together with pending claims 1-29, is respectfully requested.

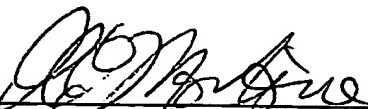
If the Examiner believes that there are any other points which may be clarified or otherwise disposed of, either by telephone discussion or by personal interview, the Examiner is invited to contact applicants' undersigned attorney at the number indicated below.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the

filing of this paper, including extension of time fees, to the deposit account of  
Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (312.104331R00).

Respectfully submitted,

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